



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,020	04/12/2005	Svetlana Chemiakina	P17672US1	2134
27045	7590	11/27/2007		
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER CEHIC, KENAN	
			ART UNIT	PAPER NUMBER
			2616	
			MAIL DATE	DELIVERY MODE
			11/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/531,020

Applicant(s)

CHEMIAKINA ET AL.

Examiner

Kenan Cehic

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/11/2007, 04/12/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because "means" in line 3 . Correction is required. See MPEP § 608.01(b).
2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1-4, 7-9,11, 15-18,21-23, 25, 28-32, 35-37, 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Reiner (EP0948168).

For claim 1, Reiner discloses a method for controlling (see section 0036 lines 2-6 "sliding window flow control....is calculated" and see Figure 1, st10-st30 and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values..congestion can be

minimized...using sliding window based flow control ...determining a window value from ...bandwidth values...” and section 0056 “flow of data is controlled”) transmission (see section 0004 line 1 “transmission of data”) of data bits (see section 0030 section 0005 lines 1-8 “bytes”) in a bit transfer (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) for transmitting data information (see section 0004 line 1 “transmission of data”) from an application server (see section 0052 lines 4-7 “server”) to a client (see section 0052 lines 4-7 “personal computer” and section 0043 lines 1-7 “personal computer”), said bit transfer (see section 0015 lines 1-4 “data flow...stream oriented”) session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) involving bit transfer (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) over a wireless communications link (see section 0043 lines 1-10 “access link....Radio Link Protocol...GSM” and section 0044 lines 5-8 “radio...cellular telephone”) by means of a transport protocol (see section 0047

lines 5-10 "TCP") with a flow control mechanism (see section 0047 lines 5-10 "TCP...flow control"), the method (Figure 1, st10-st30) comprising the steps of:

a network entity (see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender") receiving (see section 0054 lines 1-14 "bandwidth values...sent...to the receiver...to the sender"), continuously (see section 0035 lines 1-6 "bandwidth value...determined...several times" and section 0097 lines 1-22 "...over intervals" and section 0076 "periodically") throughout said session (see section 0015 lines 1-4 "data flow...stream oriented" and abstract (57) "sender to a receiver in a packet exchange connection" and section 0043 lines 1-10 "packet exchange ...personal computer...modem link..internet provider"),

information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") from a radio (see section 0043 lines 1-10 "access link...Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") resource managing unit (see section 0054 lines 1-20 "sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" and section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer") about the bandwidth (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link") on the wireless link (section 0042 lines

1-12 "available bandwidth value of the access link" and section 0043 lines 1-10 "access link...Radio Link Protocol...GSM") that the bit transfer session (see section 0041 lines 5-11 " packet exchange connection at said link") currently is allowed to use (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0060 lines 1-11 "bandwidth value...bandwidth currently available...to the connection"); and

said network entity (see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender" and section 0057 lines 1-11 "incorporated ...in one or both of the partners") updating at least one parameter (see section 0036 lines 1-7 through 0037 "window size is calculated...dependence on said bandwidths" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") relating to the flow control mechanism (see section 0036 lines 1-7 through section 0037 "window size...control window" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") of the transport protocol (see section 0037 lines 1-8 "window size ....TCP" and section 0047 lines 1-13 "TCP...flow control...bottleneck window.. congestion window...advertised window") in response to said received information (see section 0036 lines 1-7 "window size is calculated...dependence on said bandwidths" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values..."), so as to

control the transmission rate (see section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values..." and section 0056 "flow of data is controlled") of the session (see section 0015 lines 1-4 "data flow...stream oriented" and abstract (57) "sender to a receiver in a packet exchange connection" and section 0043 lines 1-10 "packet exchange ...personal computer...modem link..internet provider" and section 0057 lines 1-11 "partners in the connection") in accordance with said received (see section 0054 lines 1-14 "bandwidth values...sent...to the receiver...to the sender") information (see section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values..." and section 0056 "flow of data is controlled").

For claim 2, Reiner discloses receiving said information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values..." from a radio (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") resource managing unit (see section 0054 lines 1-20 " sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" nd section 0043 lines 1-16 "bandwidth of access link

is provided by component ...controls link layer”)) each time the bandwidth on the wireless link (section 0042 lines 1-12 “available bandwidth value of the access link” and section 0043 lines 1-10 “access link...Radio Link Protocol...GSM”) that the bit transfer session (see section 0041 lines 5-11 “packet exchange connection at said link”) is allowed to use (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0060 lines 1-11 “bandwidth value...bandwidth currently available...to the connection”) has changed (see section 0076 lines 1-18 “determine window...fastest possible rate....”)

For claim 3, Reiner discloses the network entity (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”) receiving (see section 0054 lines 1-14 “bandwidth values...sent...to the receiver...to the sender”) said information (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0042 lines 1-12 “available bandwidth value of the access link” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” from the radio (see section 0043 lines 1-10 “access link...Radio Link Protocol...GSM” and section 0044 lines 5-8 “radio...cellular telephone”) resource managing unit (see section 0054 lines 1-20 “sender...receiver...” and section 0055 lines 1-11 “sender” and section 0057 “one or both partners” and section 0043 lines 1-16 “bandwidth of access link is provided by component ...controls link layer”)) at



predetermined intervals (see section 0035 “several times during the sending” and section 0076 lines 1-18 “measuring and updating...given time period”)

For claim 4, Reiner discloses said network entity (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender” and section 0052 lines 1-10 “personal computer...server”) being (see section 0057 lines 1-12 “one or both partners in the connection”) the application server (see section 0052 lines 4-7 “server”).

For claim 7, Reiner discloses said network entity (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”) receiving (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”) said information information (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0042 lines 1-12 “available bandwidth value of the access link” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” from the radio resource managing unit (see section 0054 lines 1-20 “ sender...receiver...” and section 0055 lines 1-11 “sender” and section 0057 “one or both partners” nd section 0043 lines 1-16 “bandwidth of access link is provided by component ...controls link layer”) via the client (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”)

For claim 8, Reiner discloses characterised by said transport protocol being TCP (see section 0047 lines 5-10 "TCP" and section 0047 lines 5-10 "TCP...flow control").

For claim 9, Reiner discloses said at least one parameter being the TCP window size (see section 0037 lines 1-8 "window size ....TCP" and section 0047 lines 1-13 "TCP...flow control...bottleneck window.. congestion window...advertised window")

For claim 11, Reiner discloses further comprising updating said at least one parameter (see section 0036 lines 1-7 through 0037 "window size is calculated...dependence on said bandwidths" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") such that the bandwidth on the wireless link (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") that is utilized by the bit transfer (see section 0015 lines 1-4 "data flow...stream oriented") session (see section 0015 lines 1-4 "data flow...stream oriented" and abstract (57) "sender to a receiver in a packet exchange connection" and section 0043 lines 1-10 "packet exchange ...personal computer...modem link..internet provider") increases or decreases (see section 0036 lines 1-7 through 0037 "window size is calculated...dependence on said bandwidths" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values..." and section 0007 lines 1-10 and section 0008 lines 1-5 "...sender is not allowed to have

more...window....overflow”; adjusting window size changes the amount sent/received, thus it changes the available bandwidth”).

For claim 15, Reiner discloses an apparatus (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender” and section 0057 lines 1-11 “incorporated ...in one or both of the partners”), included in a network entity (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender” and section 0057 lines 1-11 “incorporated ...in one or both of the partners”), for Controlling (see section 0036 lines 2-6 “sliding window flow control....is calculated” and see Figure 1, st10-st30 and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values...” and section 0056 “flow of data is controlled”) transmission (see section 0004 line 1 “transmission of data”) of data bits (see section 0030 section 0005 lines 1-8 “bytes”) in a bit transfer session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) for transmitting data information (see section 0004 line 1 “transmission of data”) (see section 0052 lines 4-7 “server”) to a client (see section 0052 lines 4-7 “personal computer” and section 0043 lines 1-7 “personal computer”) , said bit transfer session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange

connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) involving bit transfer (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) over a wireless communications link (section 0042 lines 1-12 “available bandwidth value of the access link” and section 0043 lines 1-10 “access link....Radio Link Protocol...GSM”) by means of a transport protocol (see section 0047 lines 5-10 “TCP” and section 0037 lines 1-8 “window size ....TCP” and section 0047 lines 1-13 “TCP...flow control...bottleneck window.. congestion window...advertised window”) with a flow control mechanism (see section 0047 lines 5-10 “TCP...flow control”), the apparatus (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender” and section 0057 lines 1-11 “incorporated ...in one or both of the partners”) comprising:

reception means (see section 0043 lines 1-16 “personal computer...access link is a modem link” and see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”) receiving information (see section 0054 lines 1-14 “bandwidth values...sent...to the receiver...to the sender”) continuously (see section 0035 lines 1-6 “bandwidth value...determined...several times” and section 0097 lines 1-22 “...over intervals” and section 0076 “periodically”) throughout said session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) from a radio resource managing (see section 0054 lines 1-20 “

sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" and section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer") about the bandwidth use (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0060 lines 1-11 "bandwidth value...bandwidth currently available...to the connection") on the wireless link link (section 0042 lines 1-12 "available bandwidth value of the access link" and section 0043 lines 1-10 "access link...Radio Link Protocol...GSM") that the bit transfer session (see section 0015 lines 1-4 "data flow...stream oriented" and abstract (57) "sender to a receiver in a packet exchange connection" and section 0043 lines 1-10 "packet exchange ...personal computer...modem link..internet provider") currently is allowed to use (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0060 lines 1-11 "bandwidth value...bandwidth currently available...to the connection");

and parameter setting means (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender" and section 0036 lines 1-7 through 0037 "window size is calculated...dependence on said bandwidths" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") for updating (see section 0036 lines 1-7 through 0037 "window size is calculated...dependence on said bandwidths" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window

based flow control ...determining a window value from ...bandwidth values...”) at least one parameter (see section 0036 lines 1-7 through 0037 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...”) relating to the flow control mechanism (see section 0036 lines 1-7 through section 0037 “window size...control window” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...”) of the transport protocol (see section 0037 lines 1-8 “window size ....TCP” and section 0047 lines 1-13 “TCP...flow control...bottleneck window.. congestion window...advertised window”) in response to said received information (see section 0036 lines 1-7 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...”), so as to control the transmission rate (see section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values...” and section 0056 “flow of data is controlled”) of the session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider” and section 0057 lines 1-11 “partners in the connection”) in

accordance with said received (see section 0054 lines 1-14 "bandwidth values...sent...to the receiver...to the sender") information (see section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values..congestion can be minimized...using sliding window based flow control ...determining a window value from ...bandwidth values..." and section 0056 "flow of data is controlled").

For claim 16, Reiner discloses reception means (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender") receiving said information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") from a radio (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") resource managing unit (see section 0054 lines 1-20 " sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" and section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer")) each time the bandwidth on the wireless link (section 0042 lines 1-12 "available bandwidth value of the access link" and section 0043 lines 1-10 "access link....Radio Link Protocol...GSM") that the bit transfer session (see section 0041 lines 5-11 " packet exchange connection at said link") is allowed to use (see section 0041 lines 5-11 "actual bandwidth value

available to the packet exchange connection at said link" and section 0060 lines 1-11

"bandwidth value...bandwidth currently available...to the connection") has changed (see section 0076 lines 1-18 "determine window...fastest possible rate....")

For claim 17, Reiner discloses the reception means (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender") arranged to receive (see section 0054 lines 1-14 "bandwidth values...sent...to the receiver...to the sender") said information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") from the radio (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") resource managing unit (see section 0054 lines 1-20 "sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" and section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer")) at predetermined intervals (see section 0035 "several times during the sending" and section 0076 lines 1-18 "measuring and updating...given time period")

For claim 18, Reiner discloses said reception means (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14



“bandwidth values...to the receiver...to the sender”) and parameter setting (see section 0043 lines 1-16 “personal computer...access link is a modem link” and see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender” and section 0036 lines 1-7 through 0037 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” are included in the (see section 0057 lines 1-12 “one or both partners in the connection”) the application server (see section 0052 lines 4-7 “server”).

For claim 21, Reiner discloses said reception means (see section 0043 lines 1-16 “personal computer...access link is a modem link” and see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”) are arranged to receive (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”) said information information (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0042 lines 1-12 “available bandwidth value of the access link” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” from the radio resource managing unit (see section 0054 lines 1-20 “sender...receiver...” and section 0055 lines 1-11 “sender” and section 0057 “one or both partners” and section 0043 lines 1-16 “bandwidth of access link is provided by component ...controls link layer”) via the client (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”)

For claim 22, Reiner discloses characterised by said transport protocol being TCP (see section 0047 lines 5-10 "TCP" and section 0047 lines 5-10 "TCP...flow control").

For claim 23, Reiner discloses said at least one parameter being the TCP window size (see section 0037 lines 1-8 "window size ....TCP" and section 0047 lines 1-13 "TCP...flow control...bottleneck window.. congestion window...advertised window")

For claim 30, Reiner discloses receiving said information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") from a radio (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") resource managing unit (see section 0054 lines 1-20 " sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" nd section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer")) each time the bandwidth on the wireless link (section 0042 lines 1-12 "available bandwidth value of the access link" and section 0043 lines 1-10 "access link....Radio Link Protocol...GSM") that the bit transfer session (see section 0041 lines 5-11 " packet exchange connection at said link") is allowed to use (see section 0041 lines 5-11 "actual bandwidth value available to the

packet exchange connection at said link" and section 0060 lines 1-11 "bandwidth value...bandwidth currently available...to the connection") has changed (see section 0076 lines 1-18 "determine window...fastest possible rate....")

For claim 31 ,Reiner discloses the network entity (see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender") receiving (see section 0054 lines 1-14 "bandwidth values...sent...to the receiver...to the sender") said information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...") from the radio (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone").resource managing unit (see section 0054 lines 1-20 " sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" nd section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer")) at predetermined intervals (see section 0035 "several times during the sending" and section 0076 lines 1-18 "measuring and updating...given time period")

For claim 32, Reiner discloses said network entity (see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender" and section 0052 lines 1-10 "personal computer...server") being (see section 0057 lines 1-12 "one or both partners in the connection") the application server (see section 0052 lines 4-7 "server").

For claim 35, Reiner discloses said reception means (see section 0043 lines 1-16 “personal computer...access link is a modem link” and see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”) are arranged to receive (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”) said information information (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0042 lines 1-12 “available bandwidth value of the access link” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” from the radio resource managing unit (see section 0054 lines 1-20 “ sender...receiver...” and section 0055 lines 1-11 “sender” and section 0057 “one or both partners” and section 0043 lines 1-16 “bandwidth of access link is provided by component ...controls link layer”) via the client (see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender”)

For claim 39, Reiner discloses parameter setting means (see section 0043 lines 1-16 “personal computer...access link is a modem link” and see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender” and section 0036 lines 1-7 through 0037 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” is arranged to update said at least one parameter (see section 0036 lines 1-7 through 0037 “window size is calculated...dependence on said bandwidths” and section 0055

lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” such that the bandwidth on the wireless link (see section 0043 lines 1-10 “access link....Radio Link Protocol...GSM” and section 0044 lines 5-8 “radio...cellular telephone”) that is utilized by the bit transfer (see section 0015 lines 1-4 “data flow...stream oriented”) session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) increases or decreases (see section 0036 lines 1-7 through 0037 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” and section 0007 lines 1-10 and section 0008 lines 1-5 “...sender is not allowed to have more...window....overflow”; adjusting window size changes the amount sent/received, thus it changes the available bandwidth”).

For claim 28, Reiner discloses a system (see section 0036 lines 2-6 “sliding window flow control....is calculated” and see Figure 1, st10-st30 and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values...” and section 0056 “flow of data is controlled” and section 0043 lines 1-15 “personal computer...access link...modem link” and section 0054 lines 1-13

“sender...receiver”) for controlling (see section 0036 lines 2-6 “sliding window flow control....is calculated” and see Figure 1, st10-st30 and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values...” and section 0056 “flow of data is controlled”) transmission of data (see section 0004 line 1 “transmission of data”) bits (see section 0030 section 0005 lines 1-8 “bytes”) in a bit transfer (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) involving bit transfer (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) over a wireless communications link (see section 0043 lines 1-10 “access link....Radio Link Protocol...GSM” and section 0044 lines 5-8 “radio...cellular telephone”) by means of a transport protocol (see section 0047 lines 5-10 “TCP”) with a flow control mechanism (see section 0047 lines 5-10 “TCP...flow control”), the system (see section 0036 lines 2-6 “sliding window flow control....is calculated” and see Figure 1, st10-st30 and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control

...determining a window value from ...bandwidth values..." and section 0056 "flow of data is controlled") comprising an apparatus (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender") further comprising:

reception means (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender") receiving information (see section 0054 lines 1-14 "bandwidth values...sent...to the receiver...to the sender") continuously (see section 0035 lines 1-6 "bandwidth value...determined...several times" and section 0097 lines 1-22 "...over intervals" and section 0076 "periodically") throughout said session (see section 0015 lines 1-4 "data flow...stream oriented" and abstract (57) "sender to a receiver in a packet exchange connection" and section 0043 lines 1-10 "packet exchange ...personal computer...modem link..internet provider") from a radio resource managing (see section 0054 lines 1-20 "sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" and section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer") about the bandwidth use (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0060 lines 1-11 "bandwidth value...bandwidth currently available...to the connection") on the wireless link link (section 0042 lines 1-12 "available bandwidth value of the access link" and section 0043 lines 1-10 "access link...Radio Link Protocol...GSM") that the bit transfer session (see section 0015 lines 1-4 "data flow...stream oriented" and abstract (57) "sender to a receiver in a packet exchange connection" and section 0043

lines 1-10 “packet exchange ...personal computer...modem link..internet provider”)  
currently is allowed to use (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0060 lines 1-11 “bandwidth value...bandwidth currently available...to the connection”);  
and parameter setting means (see section 0043 lines 1-16 “personal computer...access link is a modem link” and see section 0054 lines 1-14 “bandwidth values...to the receiver...to the sender” and section 0036 lines 1-7 through 0037 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” for updating (see section 0036 lines 1-7 through 0037 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” at least one parameter (see section 0036 lines 1-7 through 0037 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” relating to the flow control mechanism (see section 0036 lines 1-7 through section 0037 “window size...control window” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” of the transport protocol (see section 0037



lines 1-8 “window size ....TCP” and section 0047 lines 1-13 “TCP...flow control...bottleneck window.. congestion window...advertised window”) in response to said received information (see section 0036 lines 1-7 “window size is calculated...dependence on said bandwidths” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...”), so as to control the transmission rate (see section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values...” and section 0056 “flow of data is controlled”) of the session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider” and section 0057 lines 1-11 “partners in the connection”) in accordance with said received (see section 0054 lines 1-14 “bandwidth values...sent...to the receiver...to the sender”) information (see section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values...” and section 0056 “flow of data is controlled”).

a radio (see section 0043 lines 1-10 “access link....Radio Link Protocol...GSM” and section 0044 lines 5-8 “radio...cellular telephone”) resource managing unit (see section 0054 lines 1-20 “ sender...receiver...” and section 0055 lines 1-11 “sender” and section 0057 “one or both partners” nd section 0043 lines 1-16 “bandwidth of access link is

provided by component ...controls link layer”), arranged to send (see section 0054 lines 1-14 “bandwidth values...sent...to the receiver...to the sender”) information (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0042 lines 1-12 “available bandwidth value of the access link” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...” continuously (see section 0035 lines 1-6 “bandwidth value...determined...several times” and section 0097 lines 1-22 “...over intervals” and section 0076 “periodically”), throughout (see section 0035 lines 1-6 “bandwidth value...determined...several times” and section 0097 lines 1-22 “...over intervals” and section 0076 “periodically”) said session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”), about the bandwidth (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0060 lines 1-11 “bandwidth value...bandwidth currently available...to the connection”) on the wireless link link (section 0042 lines 1-12 “available bandwidth value of the access link” and section 0043 lines 1-10 “access link....Radio Link Protocol...GSM”) that the bit transfer session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) currently is allowed to use (see section 0041 lines 5-11 “actual bandwidth value available

to the packet exchange connection at said link" and section 0060 lines 1-11 "bandwidth value...bandwidth currently available...to the connection") to the reception means (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender") of said apparatus (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender").

For claim 29, Reiner discloses said system (see section 0036 lines 2-6 "sliding window flow control....is calculated" and see Figure 1, st10-st30 and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values..congestion can be minimized..using sliding window based flow control ...determining a window value from ...bandwidth values..." and section 0056 "flow of data is controlled" and section 0043 lines 1-15 "personal computer...access link...modem link" and section 0054 lines 1-13 "sender...receiver") further includes a storing unit (see section 0052 "personal computer...server" and section 0043 lines 1-15 "personal computer"), in that the radio (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") resource managing unit (see section 0054 lines 1-20 "sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" and section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer") is arranged to send (see section 0054 lines 1-14 "bandwidth values...sent...to the receiver...to the sender") said information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange

connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values..." to said apparatus (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender") via said storing unit and in that said storing unit (see section 0052 "personal computer...server" and section 0043 lines 1-15 "personal computer") is arranged to relay (see section 0054 lines 1-14 "bandwidth values...sent...to the receiver...to the sender") said information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055 lines 1-11 "sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values..." from said radio (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") resource managing unit (see section 0054 lines 1-20 "sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" and section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer") to said apparatus (see section 0043 lines 1-16 "personal computer...access link is a modem link" and see section 0054 lines 1-14 "bandwidth values...to the receiver...to the sender").

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 5, 6, 19, 20, 33,34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner (EP0948168) in view of Wolfe et al (US 6,907,455).

For claim 5,6,19,20,33,34,Reiner describes the claimed invention in paragraph 3.

Reiner is silent about:

As regarding claim 5, 19, 33 said bit transfer session being set up between the application server and the client via a proxy and by said network entity being the proxy.

As regarding claim 6, 20, 34 said proxy sending acknowledgements of packets received from the application server during said bit transfer session and by said acknowledgements being dependent on said received information from the radio resource managing unit.

Wolfe from the same or similar field of endeavor discloses a communications network with the following features:

As regarding claim 5, 19, 33 Wolfe discloses said bit transfer session (see column 4 line 1 “session” and column 5 lines 56—67 “session”) being set up (see column 5 lines 54 through column 6 line 5 “application server...activate session...proxy...telephony device” and column 6 lines 23-26 “activation of the session of..application”) between the application server (see Figure 1 64,68, “Application Server”) and the client (see Figure 1 “Clients”, 18A-F) via a proxy (see Figure 1 “Proxy Browser”) and by said network entity (see Figure 2 “Gateway”) being the proxy (see Figure 2, “Proxy Browser”).

As regarding claim 6,20,34, Reiner discloses said receiver (see section 0004 lines 1-10 “receiver”) sending acknowledgements (see section 0004 lines 1-10 “Each segment....acknowledged”) of packets received (see section 0004 lines 1-10 “segment....receipt”) from the application server (see section 0052 lines 4-7 “server”) during said bit transfer session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) and

by said acknowledgements (see section 0004 lines 1-10 "Each segment....acknowledged") being dependent on said received information from the radio (see section 0043 lines 1-10 "access link....Radio Link Protocol...GSM" and section 0044 lines 5-8 "radio...cellular telephone") resource managing unit (see section 0054 lines 1-20 "sender...receiver..." and section 0055 lines 1-11 "sender" and section 0057 "one or both partners" and section 0043 lines 1-16 "bandwidth of access link is provided by component ...controls link layer"))).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Reiner by using the features, as taught by Wolfe, in order to forwarding capabilities of the client to a server and also to cache information.

5. Claim 10, 24, 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner (EP0948168) in view of Walding (US 6,031,845).

For claim 10, 24, 38, Reiner discloses the claimed invention as described in paragraph 3. Furthermore, for claim 10, 24,38, Reiner discloses the data to be transmitted (see section 0004 line 1 "transmission of data") during the bit transfer (see section 0015 lines 1-4 "data flow...stream oriented") session (see section 0015 lines 1-4 "data flow...stream oriented" and abstract (57) "sender to a receiver in a packet exchange connection" and section 0043 lines 1-10 "packet exchange ...personal computer...modem link..internet provider") and said received information information (see section 0041 lines 5-11 "actual bandwidth value available to the packet exchange connection at said link" and section 0042 lines 1-12 "available bandwidth value of the access link" and section 0055

lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...”)  
from the radio resource managing unit see section 0054 lines 1-20 “  
sender...receiver...” and section 0055 lines 1-11 “sender” and section 0057 “one or both partners” and section 0043 lines 1-16 “bandwidth of access link is provided by component ...controls link layer”).

Furthermore, for claim 10, 24,38, Reiner discloses the data to be transmitted (see section 0004 line 1 “transmission of data”) during the bit transfer (see section 0015 lines 1-4 “data flow...stream oriented”) session (see section 0015 lines 1-4 “data flow...stream oriented” and abstract (57) “sender to a receiver in a packet exchange connection” and section 0043 lines 1-10 “packet exchange ...personal computer...modem link..internet provider”) and said received information information (see section 0041 lines 5-11 “actual bandwidth value available to the packet exchange connection at said link” and section 0042 lines 1-12 “available bandwidth value of the access link” and section 0055 lines 1-11 “sender...automatically taking into account...bandwidth values....using sliding window based flow control ...determining a window value from ...bandwidth values...”)  
from the radio resource managing unit see section 0054 lines 1-20 “  
sender...receiver...” and section 0055 lines 1-11 “sender” and section 0057 “one or both partners” and section 0043 lines 1-16 “bandwidth of access link is provided by component ...controls link layer”).

Reiner is silent about:



Further comprising the step of transforming (see column 4 lines 1-5 “compress call data”) the data (see column 4 lines 1-5 “data”) to be transmitted (see column 4 lines 1-5 “transmission”) in response to said information regarding bandwidth (see column 4 lines 1-5 “within the bandwidth allocated to a call”).

Walding from the same or similar field of endeavor discloses communication system with the following features:

As regarding claim 10 and 34, further comprising the step of transforming (see column 4 lines 1-5 “compress call data”) the data (see column 4 lines 1-5 “data”) to be transmitted (see column 4 lines 1-5 “transmission”) in response to said information regarding bandwidth (see column 4 lines 1-5 “within the bandwidth allocated to a call”).

As regarding claim 24, further comprising means for transforming (see column 4 lines 1-5 “compress call data”) the data (see column 4 lines 1-5 “data”) to be transmitted (see column 4 lines 1-5 “transmission”) in response to said information regarding bandwidth (see column 4 lines 1-5 “within the bandwidth allocated to a call”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Reiner by using the features, as taught by Walding, in order to minimize bandwidth utilization and increase link capacity.

6. Claim 12, 13, 26, 27, 40, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner (EP0948168) in view of Holma et al (US 2002/0136192).

For claim 12,13,26,27,40,41 Reiner discloses the claimed invention in paragraph 3.

Reiner is silent about:

As regarding claim 12, 26,40, the radio resource managing unit being a radio network controller.

As regarding claim 13,27,41, the radio resource managing unit being a base station controller

Holma from the same or similar field of endeavor discloses a radio system with the following features:

As regarding claim 12, 26,40, Holma discloses the radio resource managing unit (see section 0023 "radio network controller") being a radio network controller (see section 0023 "radio network controller").

As regarding claim 13,27,41, the radio resource managing unit (see section 0023 "base station controller") being a base station controller (see section 0023 "base station controller").

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Reiner by using the features, as taught by Holma, in order to optimally implement power control of wireless component (see section 0008).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-2003/0063564 A1	04-2003	Ha et al.	370/230
US-6,754,228 B1	06-2004	Ludwig, Reiner	370/468
US-2004/0192312 A1	09-2004	Li et al.	455/445
US-2007/0061586 A1	03-2007	Golubchik et al.	713/178

Above are recited to show systems/method of flow control.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KC

KWANG BIN YAO  
SUPERVISORY PATENT EXAMINER

